



Shopsmith PowerPro Headstock

Supplemental Instructions

556187 & 556176

Thank you for purchasing the PowerPro Headstock Upgrade for your Shopsmith machine!

Please read this supplement in its entirety before even opening the primary PowerPro Upgrade instructions. In this supplement there are some very important changes to the parts and procedure for upgrading your Headstock to the PowerPro motor and Electronics. For easy reference, these changes are listed page-by-page as they relate to the primary instructions. New illustration and photos are added here to show key features and part changes.

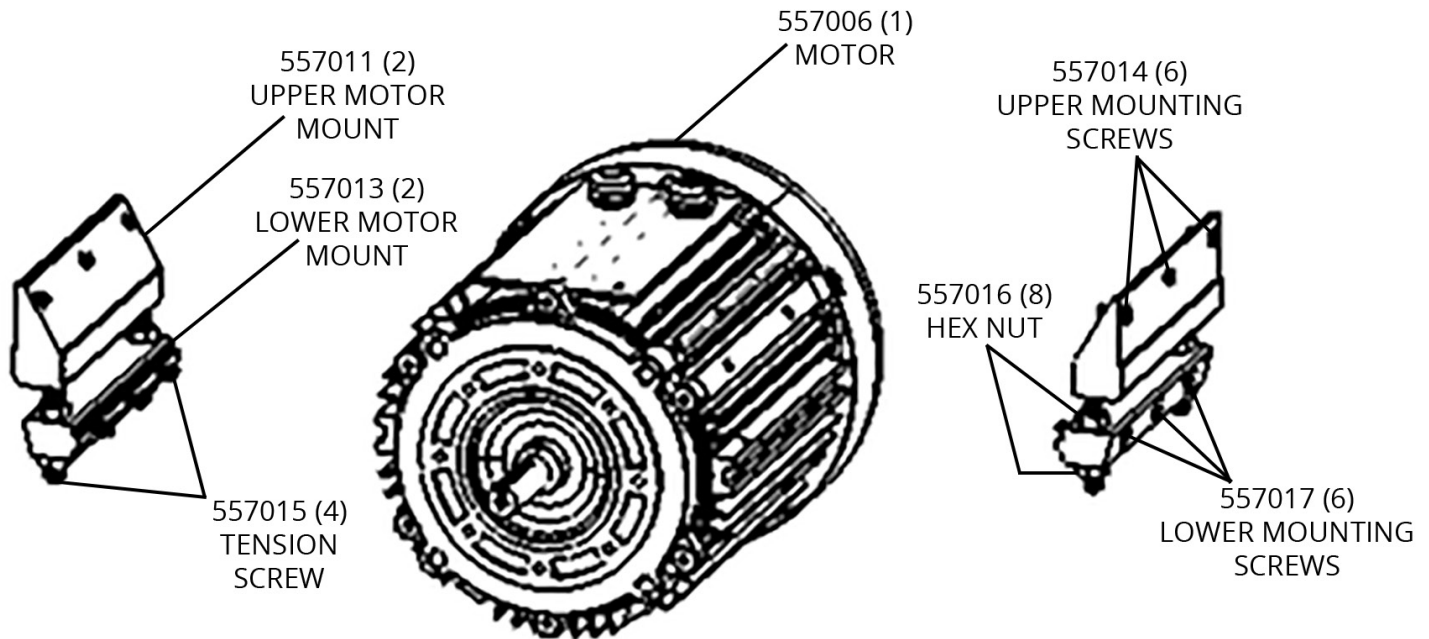


The motor and motor mounts have changed from what is shown in your PowerPro Headstock manual. This upgrade incorporates a simplified motor mounting system. Because of this change, the belt tensioning procedure is different.

Please keep this supplemental instruction packet with your original Owner's Manual. This supplement covers the following changes:

- **New PowerPro Motor with Pulley**
- **New PowerPro Motor Mounts**
- **New Belt Tensioning Procedure**

PAGES B-1 & B-2

PARTS LIST & EXPLODED DIAGRAM:

The motor in your PowerPro Headstock is different than the one shown in the Parts list and Exploded View in your PowerPro Headstock Owner's Manual. This new motor has the same performance as the original motor. It is a different shape with a smaller motor shaft. The wires are longer for easier assembly and there is an adaptor to connect the motor to the Power Supply. **(See Parts Illustration)**

- 557010 Motor
- 557038 Motor Pulley Key
- 557039 Motor Pulley Adaptor Sleeve
- 557040 Motor Pulley Locking Ring with Setscrew
- 557041 Wire Adaptor

The change in the shape of the motor required new motor mounts and the way the motor mounts connect to the Headstock as well as the way belt tension is set. **(See Parts Illustration)**

The new motor mount and mounting hardware part numbers are as follows:

- 557011 Upper Mount (2-pcs)
- 557013 Lower Mount (2-pcs)
- 557015 Tensioning Screw, M8-1.25x60mm lg. (4-pcs)
- 557016 Lock Nut, M8 Hex Nut (8-pcs)
- 557017 Motor Mounting Screws M6-1x30mm Rnd.Hd.Cap Scr.(6-pcs)
- 557014 Motor Mounting Screws M6-1x16mm Rnd.Hd.Cap Scr. (6-pcs)

Items 102, 103, 104, 105, 106, 107, 108, in the parts list of your Owner's Manual have been replaced with the above parts and will no longer be available. Please cross them out in the original parts list.

PAGES E-3 & E-4

MOTOR BELT TENSIONING:

With these new motor mounts, you will tension the belts differently inside the Headstock than shown in this PowerPro Headstock Manual. This new system uses threaded rods to support the motor and Hex Nuts locked against the Motor Mounts to lock the Motor in place.

NOTE: The belt comes pre-tensioned from the factory. No adjustments should be necessary. After a period of wear and tear, you may find some adjustment necessary. At that point, you will want to follow these instructions.

Tools Required:

- 13mm Open End Wrench or Adjustable Wrench
- 12" long Straightedge
- #2 Phillips Screwdriver
- Shopsmith 5/32" Allen Wrench

NOTE: The motor mounts are referred to as Upper and Lower according to their orientation inside the Headstock, relative to the motor, when the machine is in the horizontal position. When the machine is in the vertical maintenance position, the Lower Motor Mount connects directly to the Motor. The Upper Motor Mount connects to the Headstock casting.

To adjust the belt tension in your Headstock, follow the procedure below:

1. Turn off and unplug your Headstock from the outlet.
2. Remove all accessories from the Headstock and table of your machine.
3. Use the 5/32" Allen wrench to remove the hubs from the upper auxiliary and idler shafts.

4. Position the Headstock on the way tubes, near the right end of the way tubes. If you have the Lift Assist, position the carriage 14" from the Lift Assist Caps. Lock the carriage on the way tubes
5. Use the #2 Phillips screwdriver to remove the two screws that hold the belt cover on the Headstock. Slide the Belt Cover to the left and fasten to the Base Arm with a string or large rubber band.
6. Stand the machine up to vertical drill press position. Place the table in the bottom of the carriage from over the bench tubes. Tilt the table so it is at 90-degrees to the way tubes. This table will become your work surface to hold parts and tools. (**See Photo-1**)



Photo-1

7. Use the #2 Phillips screwdriver to remove the 5-screws holding the motor pan to the Headstock. Allow the Motor Pan to hang from the power cord.
8. The Lower Motor Mount on each side of the motor has Lock Nuts on both sides, at either end of the motor mount:
 - These nuts adjust the belt tension and sets the motor alignment to the belts and pulleys above.
 - They also lock the motor rigidly in position.
 - When changing belt tension be sure to turn each nut the same amount to keep alignment of the pulley and belts correct.
9. If the belt is too loose and needs tightening:
 - Loosen all four nuts near the end of the threaded stud (517015) a quarter-turn. **(See Photo-2)**

- Then tighten nut each nut located between upper and lower mounts a quarter turn toward the lower motor mount.
- Place the straightedge against the pulley face. Slide the straightedge up toward the Idler Shaft, parallel to the motor belt. Check to see that the straightedge is still parallel to the edge of the belt. **(See Photo-3)**

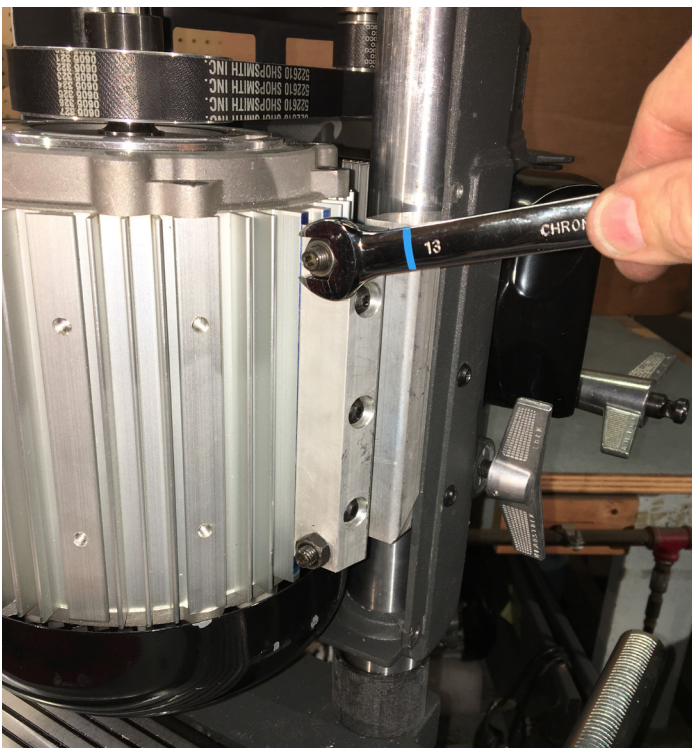


Photo-2

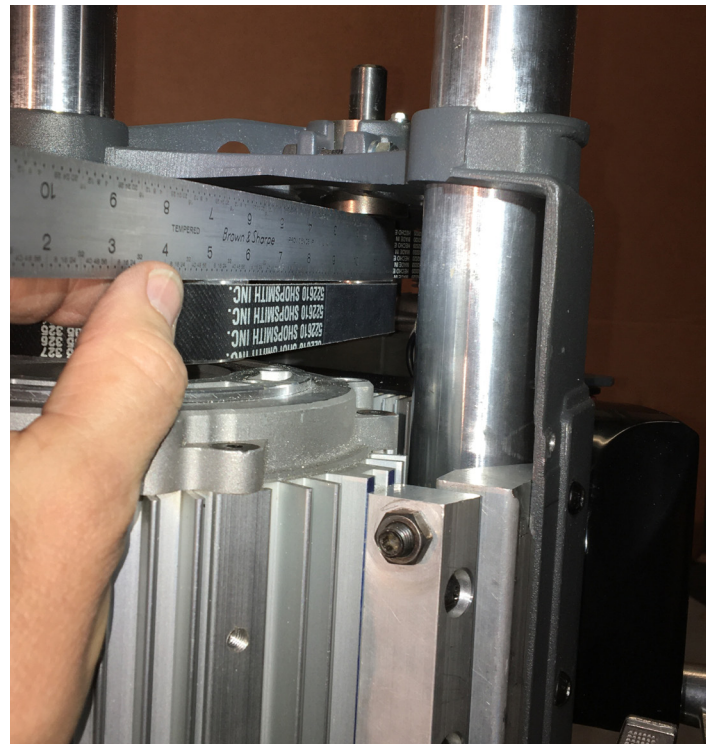


Photo-3

- Follow procedure in your primary Owner's Manual for Balancing the Belt Tension in the Maintenance and Troubleshooting section.
- If belt is still too loose repeat steps above.

10. If the belt is too tight and needs loosening:

- Loosen all four nuts between the motor mounts a quarter-turn. **(See Photo-4)**

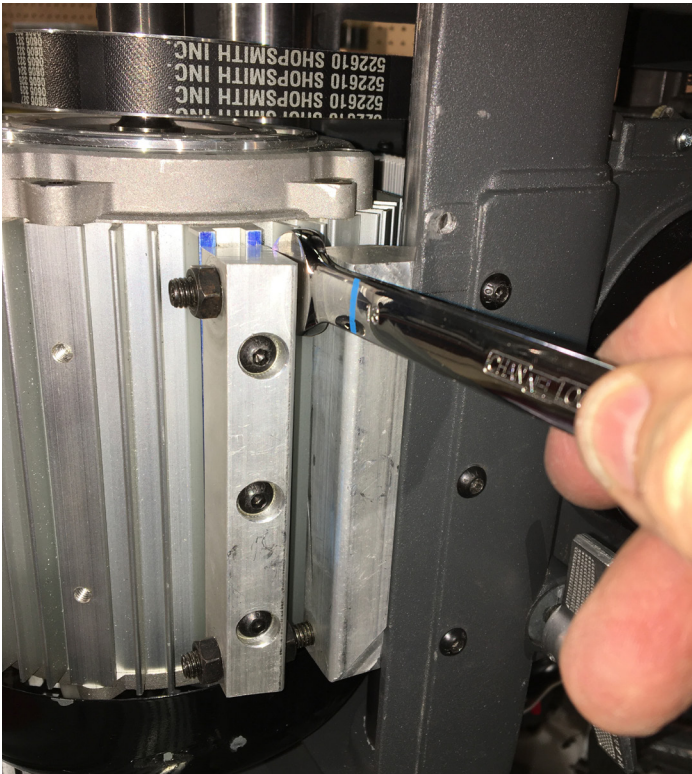


Photo-4

- Then tighten the four nuts near the end of the threaded stud (517015) against each lower motor mount.
- Place the straightedge against the pulley face. Slide the straightedge up toward the Idler Shaft, parallel to the motor belt. Check to see that the straightedge is still parallel to the edge of the belt. **(See Photo-5)**

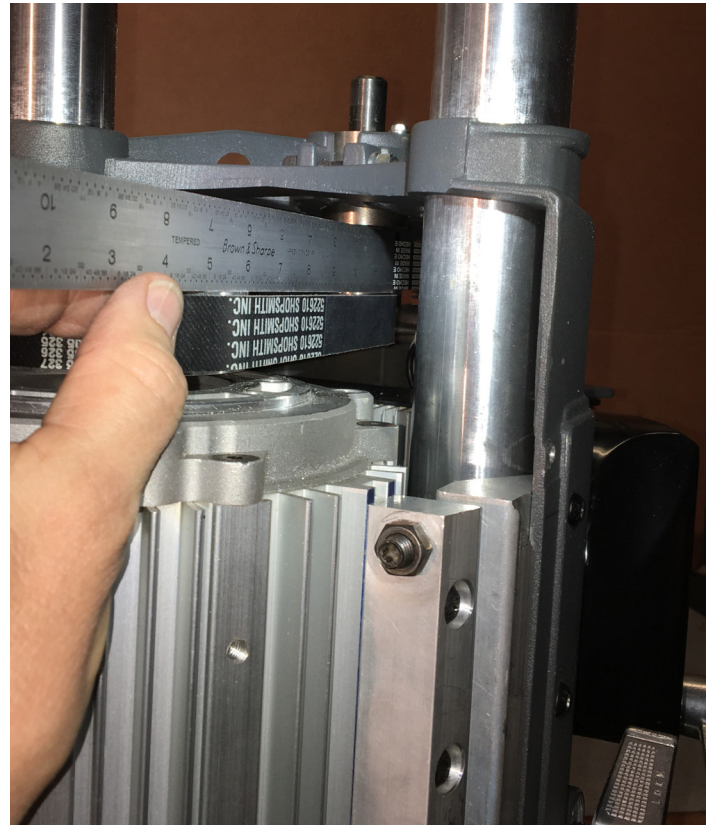


Photo-5

- Follow procedure in your primary Owner's Manual for Balancing the Belt Tension in the Maintenance and Troubleshooting section.
- If belt is still too tight repeat steps above.